## Remarks

I. Introduction

This is in response to the Office Action dated December 19, 2003. The Office Action objected to the drawings as failing to comply with 37 C.F.R. §1.84(p)(5) because they do not include the reference sign "1" referred to in the specification. The Office Action also objected to the Abstract. While no specific reason was given for the rejection to the Abstract, Applicants assume that the Abstract was objected to due to its length. The Office Action rejected claims 1-19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action rejected claims 1-19 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,526,508 (Akins, III et al.).

In response, Applicants have amended claims 1 -3, 13 and 15. Claims 5 and 16-19 have been cancelled. Claims 1-4 and 6-15 remain for consideration.

Applicants have amended the specification in order to correct several typographical errors.

II. Drawing Amendments

Figure 1 has been amended to add the callout reference "1" as required by the Office Action. Withdrawal of the objection is requested.

Figure 2 has been amended to be more consistent with the specification.

III. Abstract

The Abstract has been amended as required by the Office Action. Withdrawal of the objection is requested.

IV. Rejections under 35 U.S.C. §112

The Office Action rejected claims 1-19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action first indicates that the phrase "gateway" renders the claims indefinite and unclear. As used in the present application, gateway represents a network node or element, for example gateways 705, 707, 708. The term is used consistently throughout the application in this manner. Claims 1 and 15 have been amended to clarify that the gateways are located at customer premises. Applicants do not understand the Examiner's objection to this term. In particular, Applicants do not understand the Examiner's rejection that the claim is indefinite and unclear because "neither method steps nor interrelationship of method steps are set forth in these claims in order to achieve the desired results expressed in the "gateway" phrases". If the Examiner persists in this rejection, Applicants respectfully request that the Examiner explain what is meant by "the desired results expressed in the "gateway" phrases". The term gateway as used here is a noun describing a network element, and the term, in itself, does not express any desired result. Applicants request withdrawal of this rejection.

The Office Action rejected claim 1 because the phrase "terminating subscriber gateway" makes the claims indefinite because nowhere is an action of termination being disclosed. The use of the term "terminating" subscriber gateway is an identifier used to distinguish this gateway from the "originating" subscriber gateway. While the terms "first" and "second" could have been used, the terms "terminating" and "originating" are used as they are more descriptive and more closely match the terminology used in the specification (for example see Fig. 7).

The Office Action rejected claim 1 because the phrase "for use" makes the claim indefinite and unclear. The phrase "for use" has been deleted from claim 1. As such, Applicants request withdrawal of this rejection.

The Office Action rejected claims 2-4 because the term "wherein" makes the claim indefinite and unclear. The phrase "wherein" has been deleted from claims 2 and 3. Applicants do not understand the Examiner's objection to this term with respect to claim 4. In particular, Applicants do not understand the Examiner's rejection that the

claim is indefinite and unclear because "neither method steps nor interrelationship of method steps are set forth in these claims in order to achieve the desired results expressed in the "wherein" phrases". If the Examiner persists in this rejection, Applicants respectfully request that the Examiner explain what is meant by "the desired results expressed in the "wherein" phrases". The "wherein" term is used as a transition phrase to describe further details of the encrypted data packet, and the term, in itself, does not express any desired result. Applicants request withdrawal of this rejection.

The Office Action rejected claim 5 because the phrase "steps i through iii" made the claim indefinite and unclear. Claim 5 has been cancelled.

The Office Action rejected claim 1 because "said first confidential password" lacked antecedent basis. Claim 1 has been amended to change "said first confidential password" to "said first confidential key". Withdrawal of this rejection is therefore requested.

The Office Action rejected claim 13 because "the initial step" lacked antecedent basis. Claim 13 has been amended to delete the term "initial". Withdrawal of this rejection is requested.

Applicants submit that the bases for all §112 rejections have been removed. Withdrawal of all §112 rejections is requested.

V. Rejections under 35 U.S.C. §102

The Office Action rejected claims 1-19 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,526,508 (Akins, III et al.).

In order for a claim to be anticipated under 35 U.S.C. §102, **each and every** limitation of the claim must be found either expressly or inherently in a single prior art reference. PIN/NIP, Inc. v. Platte Chem. Co., 304 F.3d 1235, 1243 (Fed. Cir. 2002). In the present case, Akins, III et al. does not show each and every limitation of claims 1-4 and 6-15. Therefore, applicants request the withdrawal of the rejections under 35 U.S.C. §102(e).

Akins, III et al. is directed to a cable television system which provides conditional access to its services. The cable television programs are broadcast to multiple set top boxes which, if authorized, decrypt the television programs. While there is some

relationship between the technology of Akins, III et al. and the present invention, there are significant differences which render the present invention patentable over Akins, III et al.

With reference to claim 1, it is noted that there are three entities involved in the secure communication method: a network server, an originating subscriber gateway, and a terminating subscriber gateway. Claim1 has been amended to clearly set forth that the server is a network server, while each of the subscriber gateways are located at a customer premises. Each entity plays a specific role in the inventive method. First, the network server assigns and transmits a confidential key to the originating subscriber gateway. The originating subscriber gateway then transmits the key to the terminating subscriber gateway in order to allow for the future exchange of packets encrypted with the confidential key between the originating and terminating subscriber gateways. These method steps, as claimed in claim 1, are absent from Akins, III et al.

In particular, Akins, III et al. in Fig. 1 shows an entitlement management message EMM 111 being sent from the service distribution organization (SDO) 103 to the subscriber's set top box 113. See also Akins, III et al. at col. 4, line 41 – col. 5, line14, and col. 6, lines 18-23. In this regard, the SDO may be likened to the network server of claim 1, and the set top box may be likened to the originating subscriber gateway of claim 1. However, this is where the similarity between Akins, III et al. and claim 1 ends. The next step of claim 1 is transmitting the confidential key from the originating subscriber gateway to a terminating subscriber gateway located at a customer premises. There is no such disclosure in Akins, III et al. There is no disclosure in Akins, III et al. which shows the set top box 113 at the customer premises transmitting the received key to another set top box at another customer premises. Without such a disclosure, there is no disclosure of the second step of claim 1. In finding this element of claim 1 present in Akins, III et al. the Office Action indicates that this step is similar to the transmission of a confidential key such as control word CW and cites Akins, III et al. at col. 4, lines 51-55 and col. 4, lines 28-35. However, the cited sections merely show that the cable TV network is transmitting control information to the set top box at the customer premises. This step has already been discussed above and is similar to the first step of claim 1. However, it is very different from the second step of claim 1. Again, the transmission of

a confidential key from the network to the subscriber is not the same as the subscriber further transmitting the confidential key to another subscriber at another customer premises. Thus, the second step of claim 1,

> transmitting said first confidential key from said originating subscriber gateway to a terminating subscriber gateway located at a customer premises in advance of or simultaneous with a first encrypted data packet, said first encrypted data packet being encrypted with said first confidential key

is not shown nor suggested by Akins, III et al. For this reason, Akins, III et al. cannot anticipate claim 1 under the strict standard of 35 U.S.C. §102. Withdrawal of the rejection is therefore requested.

> Further, Akins, III et al. does not show the third step of claim 1, of
>
> exchanging packets encrypted via said first confidential key between said originating and said terminating subscriber gateway.

This step requires the exchanging of packets, which have been encrypted with the first confidential key, between the originating and terminating subscriber gateways, both of which are located at customer premises. Referring to Akins, III et al., this would require the exchange of encrypted data between the subscriber set top boxes. This is not shown in Akins, III et al., and in fact would not make any sense because Akins, III et al. is directed to a broadcast cable TV system. This type of system is concerned with broadcasting information from a cable head end to subscribers at customer premises, and is not concerned with the exchange of information between subscribers. In finding this step of claim 1 disclosed by Akins, III et al, the Office Action states that Fig. 7 shows transmission from the Akins, III et al. delivery system (corresponding to applicant's originating gateway) to the receiver top box (corresponding to applicant's terminating subscriber). However, as discussed above, the delivery system in Akins, III et al. does not correspond to the originating gateway located at a customer premises in claim 1. If at all, the delivery system in Akins, III et al. is closer to the network server of claim 1. The Office Action cites several sections of Akins, III et al. as disclosing this last element of claim 1, however none of the cited sections disclose a set top box exchanging information with another set top box, and therefore the messaging method of Akins, III does not correspond with the steps of claim 1. Therefore, for this additional reason, Akins, III et

al. cannot anticipate claim 1 under the strict standard of 35 U.S.C. §102. Withdrawal of the rejection is therefore requested.

Independent claim 15 is allowable for reasons similar to those described above in connection with claim 1. In particular, claim 15, as amended, now contains the limitation of,

> a second intelligent gateway located at a customer premises that encrypts and decrypts packets of communication sent and received from said first intelligent gateway using a security key received from said first intelligent gateway.

For the reasons described above, Akins, III et al. does not disclose first and second intelligent gateways, located at customer premises, exchanging encrypted data. Therefore, Akins, III et al. cannot anticipate claim 15 under the strict standard of 35 U.S.C. §102.

For the reasons described above, independent claims 1 and 15 are allowable over the cited art. All remaining dependent claims depend from an allowable independent claim and are therefore also allowable. The dependent claims also add additional patentable subject matter as follows.

Claim 6 is directed to secure communication in which the communication is a multimedia communication comprising audio, video an data and wherein the different types of data are encrypted at different levels of security. The Office Action cites Fig. 3 as disclosing the subject matter of claim 6. However, Fig. 3 clearly shows the content (audio, video, data 325) all being encrypted with a single decryption function, DES 327, and therefore all have the same level of decryption. While Fig. 2A shows different levels of encryption, there is no indication that the individual components of the multimedia stream (i.e., audio, video, data) are encrypted at different levels. In fact, Fig. 3 suggests that all such components are encrypted using the same encryption level.

Claim 8 is directed to the use of an intermediate server to translate between different encryption algorithms. The Office Action cites Akins, III et al. at Fig. 2A as disclosing this aspect of the invention. However, the use of multiple level encryption does not disclose the claimed use of an intermediate server to translate between different encryption algorithms. The cited portion of Akins, III et al. shows no intermediate servers and no translation between encryption algorithms.

Claim 9 is directed to a third party having access to only one level of security and therefore only being capable of receiving one of audio, video and data. The Office Action cites Akins, III et al. at Fig. 2A as disclosing this aspect of the invention. However, again, the use of multiple level encryption does not disclose a third party having access to only a portion of the data stream. In Akins, III et al., a user has access to the entire data stream of none of the data stream. As such, claim 9 cannot be anticipated by Akins, III et al.

Claim 10, which is dependent upon claim 6, is directed to user changeable security levels. There is no such disclosure in Akins, III et al. and the Office Action fails to cite any section of Akins, III et al. which discloses this aspect of the invention. Applicants request that if the Examiner persist in this rejection, that particular portions of Akins, III et al. be cited with respect to this claim.

Claim 11 is directed to the aspect of the invention in which the server downloads an encryption algorithm to the originating and terminating subscriber gateways. There is no such disclosure in Akins, III et al. The Office Action cites Fig 2A of Akins, III et al. and states that by utilizing an encryption algorithm downloading becomes a "nasality". Applicants request clarification as to what is meant by "nasality". Applicants submit that the use of encryption algorithm to enable a download does not anticipate this claim which claims the downloading of the decryption algorithm itself.

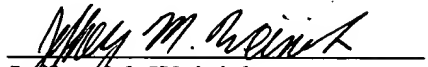
VI. No New Matter Has been Added

No new matter has been added. The claim limitations added with respect to the gateways being located at customer premises is supported by the specification as filed at least in Fig. 1 which shows the broadband residential gateway 300 within the customer premises equipment 102.

VII. Conclusion

For the reasons discussed above, all pending claims are allowable over the cited art. Reconsideration and allowance of all claims is respectfully requested.

Respectfully submitted,



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